



Atty.
Dkt. No.

M#

Client Ref.

061063

0356139

OSP-19398

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

Applicant: HOURAI et al.

Appln. No.: 10/587,039

Filing Date: July 24, 2006

Date: August 1, 2007

Page 1 of 1

Examiner: Unassigned

Group Art Unit: 1722

U.S. PATENT DOCUMENTS

| Examiner's Initials* | Document Number | Date MM/YYYY | Name (Family Name of First Inventor) | Class | Sub Class | Filing Date (if appropriate) |
|-------------------------|--------------------|-----------------|---|-------|--------------|------------------------------------|
| FH. | AR 2003/0022003 A1 | 01/30/2003 | Park | — | — | — |
| | BR | | | | | |
| | CR | | | | | |
| | DR | | | | | |
| | ER | | | | | |
| | FR | | | | | |
| | GR | | | | | |
| | HR | | | | | |
| | IR | | | | | |
| | JR | | | | | |
| | KR | | | | | |
| | LR | | | | | |
| | MR | | | | | |
| | NR | | | | | |

FOREIGN PATENT DOCUMENTS

| | | Document Number | Date MM/YYYY | Country | Inventor Name | English Abstract | | Translation Readily Available | |
|-----|----|--------------------|-----------------|---------|---------------|---------------------|----|-------------------------------------|----|
| | | | | | | Enclosed | No | Enclose | No |
| FH. | OR | 2001-0090002 | 10/17/2001 | Japan | | X | — | — | — |
| FH. | PR | 486749 | 05/11/2002 | Taiwan | | X | — | — | — |
| | QR | | | | | | | | |
| | RR | | | | | | | | |
| | SR | | | | | | | | |
| | TR | | | | | | | | |
| | UR | | | | | | | | |
| | VR | | | | | | | | |
| | WR | | | | | | | | |
| | XR | | | | | | | | |

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

| | | | | | | |
|-----|-----|--|---|---|---|---|
| FH. | YR | Office Action dated May 2, 2007 on the counterpart Taiwanese Patent Application No. 094128981. | — | — | X | — |
| | ZR | | | | | |
| | AAR | | | | | |
| | BBR | | | | | |

Examiner: *[Signature]*

Date Considered: 8/15/2007

*EXAMINER Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

IAP6 Rec'd PCT/PTO 24 JUL 2006

PTO/SB/08b (07-05)

Approved for use through 06/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

| | | | |
|---|------------------------|------------------------------------|----------------------------|
| Substitute for form 1449B/PTO | | Complete if Known 201587039 | |
| INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) | | Application Number | 201587039 |
| | | Filing Date | 07/24/2006 |
| | | First Named Inventor | MASATAKA HOURAI |
| | | Art Unit | 1722 |
| | | Examiner Name | UNASSIGNED Hiteshen |
| Sheet 1 of 1 | Attorney Docket Number | 061063-0356139 | |

| NON PATENT LITERATURE DOCUMENTS | | | |
|---------------------------------|-----------------------|---|----------------|
| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
| FH | I. | MASAAHI SUEZAWA, "Hydrogen and Crystal Technology - controlling of ultimately light element," 110th Workshop Text, JPN Soc. Appl. Phys., Div. Science and Technology of Crystals, p. 11-18, (6/3/1999). | |
| FH | II. | E. IINO ET AL., "Cavities owing to Hydrogen in Si single crystals grown by continuously charging CZ method," Materials Science and Engineering, p. 146-149, B6 (1996). | |
| FH | III | T.H.WANG, ET AL., "Charge carrier recombination centers in high-purity, dislocation-free, float-zoned silicone due to growth-induced microdefects," Journal of Crystal Growth, p. 155-161, Vol. 109 (1991). | |
| FH | IV. | YOSHIMITSU SUGITA, "X-Ray Observations of Defect Structures in Silicone Crystal," Japanes Journal of Applied Physics, Vol. 4 (No. 12), p. 962-972, (7/9/1965). | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| | |
|------------------------------------|----------------------------------|
| Examiner Signature Hiteshen | Date Considered 8/16/2007 |
|------------------------------------|----------------------------------|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

24 JUL 2006

PTO/SB/08a (07-05)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 2

Complete if Known

| | |
|--------------------|-----------|
| Application Number | 10/587030 |
|--------------------|-----------|

| | |
|-------------|------------|
| Filing Date | 07/24/2006 |
|-------------|------------|

| | |
|----------------------|-----------------|
| First Named Inventor | MASATAKA HOURAI |
|----------------------|-----------------|

| | |
|----------|-------|
| Art Unit | I 782 |
|----------|-------|

| | |
|---------------|----------------|
| Examiner Name | H. P. S. S. S. |
|---------------|----------------|

Attorney Docket Number 061063-0356139

U. S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ^o |
|--------------------|-----------------------|---------------------------|--|--------------------------------|--|---|----------------|
| | | Country Code ² | Number * Kind Code ³ (if known) | | | | |
| F.H. | 1 | JP | 2001-220289 | 08/14/2001 | OKUI, ET AL. | — | |
| F.H. | 2 | JP | 2002-187794 | 07/05/2002 | MURAKAMI, ET AL. | — | |
| F.H. | 3 | JP | 2000-281491 A | 10/10/2000 | IKARI, ET AL. | — | |
| F.H. | 4 | JP | 2001-335396 | 12/04/2001 | VON AMMON, ET AL. | — | |
| F.H. | 5 | JP | 2001-151597 | 06/05/2001 | Mitsubishi Materials | — | |

**Examiner
Signature**

Date _____

Considered

*EXAMINER: Initial reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/08a (07-05)
Approved for use through 07/31/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
o a collection of information unless it contains a valid OMB control number.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

(Use as many sheets as necessary)

Complete if Known

| | |
|------------------------|-----------------|
| Application Number | 10/587039 |
| Filing Date | 07/24/2006 |
| First Named Inventor | MASATAKA HOURAI |
| Art Unit | 1720 |
| Examiner Name | Hatake |
| Attorney Docket Number | 061063-0356139 |

U. S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
|--------------------|-----------------------|---------------------------|---|--------------------------------|--|---|----------------|
| | | Country Code ² | Number ³ Kind Code ⁴ (if known) | | | | |
| FH ₂ | 6 | JP | 2004-182525 | 07/02/2004 | — | — | |
| FH ₁ | 7 | JP | 11-189495 A | 07/13/1999 | — | — | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Examiner
Signature

Date
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.